



Office of Biological and Physical Research

ISS Research Institute SSUAS Briefing

Betsy Park
Program Executive for ISS
Utilization Management

July 28, 2003



NGO Chronology

- NGO Studies
 - October 1999 - Options for Managing Space Station Utilization, Swales Aerospace
 - December 1999 - Institutional Arrangements for Space Station Research, National Research Council
 - August 2000 - International Space Station Operations Architecture Study, Computer Sciences Corporation
 - June 2001 - NASA Internal Study
 - February 2002 - International Space Station Payload Operations Concept and Architecture Assessment Study (POCAAS), Computer Sciences Corporation
 - January 2003 - Utilization Management Concept Development Study, NASA
- In Progress - ISS Research Institute Statement of Work (SOW) Development Team, NASA



Appropriations Direction

Congressional Direction on Management of ISS Research:

- **Limitation included in FY 2001 & FY 2002 VA-HUD-Independent Agencies Appropriations Acts:**

No funds in this act or any other appropriations Act may be used to finalize an agreement prior to December 1, 2002 between NASA and a nongovernment organization to conduct research utilization and commercialization management activities of the International Space Station (P.L. 107-73).

- **FY 2002 VA-HUD-Independent Agencies Appropriations Act (P.L. 107-73) Conference Report (H.R. 107-272), p. 169:**

...A fourth provision, prohibiting establishment of a non-governmental organization for the International Space Station as proposed by the House, has been included in the conference agreement. The conferees look forward to receiving a comprehensive proposal for managing the ISS science program at which time it will re-evaluate the foregoing prohibition.

- **FY 2003 Omnibus Appropriations Act (P.L. 108-7), signed into law on February 20, 2003, states:**

"NASA is authorized to proceed with establishment of a Non-Governmental Organization for International Space Station research: Provided, That no funds in this Act or any other appropriations Act may be expended for establishment of a Non-Governmental Organization that includes engineering and integration functions identified as Phase 2 in the Report of NASA's International Space Station Utilization Management Concept Development Study submitted on January 10, 2003."



ISS Research Institute

- The ISSRI will provide the mechanism to bring the user community into the utilization decision making process
 - Partners with NASA in research selection recommendations
 - Selects research for Guest Investigator Programs
 - Evaluates commercial proposals and makes selection recommendations
 - Provides community input to the Enterprise strategy and develops ISS utilization roadmaps
 - Works with NASA on payload prioritization
 - Provides community voice in ISS and Enterprise forums
- The ISSRI will assure stability for the user community
 - Provides continuity in user advocacy and a consistent user focus across administrations
- The ISSRI will provide additional expertise
 - Complements NASA efforts for longer term research agendas
 - Provides an increased tactical emphasis



Recent Progress

- Request for Information (RFI) was released for public comment on 4/25/03
 - Responses received 6/2/03 from 7 organizations and 1 individual
- Analyzing RFI inputs for incorporation into SOW
- Draft Statement of Work in review internally
 - Release for public comment scheduled for August/September 2003



Key Elements of RFI

- Actively engaging in competitively awarded research;
- Developing focused ISS user community input for the Office of Biological and Physical Research's (OBPR) strategic planning process and implementing appropriate strategic plans;
- Providing a consolidated, strong advocate for the user community;
- Providing focused, consistent customer support for ISS users;
- Partnering with NASA in the research solicitation, selection, and prioritization process, including providing selection recommendations. (Overall strategic direction of research selection will continue to be a NASA function.);
- Conducting concept studies for research initiatives;
- Managing Guest Investigator programs, including solicitation and selection of Guest Investigator research to align and contribute to meeting NASA's objectives;
- Partnering with NASA in strategic payload manifesting and allocating payload resources for OBPR sponsored payloads;
- Fostering and coordinating commercial space research within the ISS;
- Providing educational outreach and public outreach (EO/PO);
- Developing recommendations for ISS process and system improvement to optimize and enhance utilization; and
- Managing data archival.



RFI Responses - General Comments

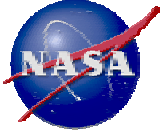
General Comments

- Strong endorsement of NASA's intent to establish an Institute to manage and facilitate the pursuit of ISS research
- Basic concept is feasible
- Ability of staff to conduct research is key
- GI Program is an excellent opportunity
- Archive and dissemination are critical functions
- Concern expressed that if ISSRI doesn't progress beyond Phase 1, it will not realize its full potential
- The community and NASA will not be well served by an Institute that is merely a support contractor



RFI Responses - Recommendations

- Leadership
 - Clarify expectations to provide intellectual leadership - this requires programmatic responsibility and authority to prioritize and select, to define projects, to fund activities
 - Give researchers final authority over all matters (except safety) related to their research
- Science Emphasis
 - Define which science disciplines should be emphasized initially in order to enable proposing initial research management capabilities with most overall benefit and planning staff buildup
- Senior NASA management team membership
 - Senior NASA management team (for strategic direction) should include rotating representation of major non-NASA research communities such as other governmental users, external user groups, external research organizations
 - ISSRI should recommend potential members with goal of broad research support and infusion of new and innovative perspectives



RFI Responses - Recommendations

- Research Prioritization
 - ISSRI should have a voting role in prioritization and payload manifesting decisions
- Customer Support
 - Institute should have core capability for systems engineering to provide professional assistance to users
- Customer Feedback
 - To be a strong advocate for ISS utilization, ISSRI should do more than merely provide customer feedback, but should have authority to impact research integration and operations processes
 - Responsibilities should be recognized by all Program elements and a response procedure set up and enforced
 - Researcher feedback should be developed by a group independent of NASA, contractors, and the ISSRI



RFI Responses - Recommendations

- Integration and Operations
 - The Institute should have seat at the table on behalf of users when decisions are made concerning integration and operation of payloads
 - Institute should provide scientific representation for on-orbit operations planning, operational resource allocation, research execution, and operational replanning
- Archive
 - Ask for the most advanced information technology and data management techniques
- Relationship to Other Institutes
 - ISSRI should partner with existing Institutes, providing leadership and support
 - Incorporate existing institutes and Research Partnership Centers (RPCs) into the ISSRI contract so services flow from ISSRI to institutes and RPCs, not from OBPR
 - Make the ISSRI the Institute of Institutes



RFI Responses - Recommendations

- Advisory Boards
 - Potential for duplication and overlap with BPRAC and SSUAS - consider ISSRI as the key advisory group for users and permit it to establish its own advisory board
 - ISSRI Director should be member, staff, or key advisor to existing boards
- Performance Evaluation
 - ISSRI will be dependent on multiple interfaces - have an avenue for ISSRI submitting its performance evaluation of the programmatic and functional interfaces
 - User communities must also take responsibility for Institute's performance through evaluation and oversight, community governance should be integrated with NASA oversight



RFI Responses - Recommendations

- Contract
 - Initial contract period of performance should be five years
 - Initial contract period of performance should be greater of five years or assembly complete plus 2 years
 - Recommend accelerated procurement to have resulting research in flight-ready state when ISS ready to support it
 - Allow no less than 6 months from RFP release to proposal receipt and require finalized agreements between proposer team and personnel



Proposed Next Steps

- Release Draft Statement of Work for public comment Aug/Sept 2003
- Release Draft RFP for public comment Nov/Dec 2003
- Release RFP Jan/Feb 2004
- Contract start Oct/Dec 2004